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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,397	04/22/2004	Michael Schindzielorz	039861-0112	5403

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FOLEY AND LARDNER LLP
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EXAMINER

JUSKA, CHERYL ANN

ART UNIT	PAPER NUMBER
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1771

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/829,397	Applicant(s) SCHINDZIELORZ ET AL.	
	Examiner Cheryl Juska	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2006.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
 4a) Of the above claim(s) 4-8, 13-17, 30, 42, 43 and 46-52 is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-3, 9-12, 18-25, 29, 31-41, 44, 45, 53, and 54 is/are rejected.
 7) ☒ Claim(s) 26-28 is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed October 30, 2006, has been entered. Claims 1, 10, 40, 53, and 54 have been amended as requested. The pending claims are 1-54 with claims 4-8, 13-17, 30, 42, 43, and 46-52 being withdrawn as non-elected.
2. Said amendment is sufficient to withdraw the 102 rejection by Ekern (US 2002/0140258) as set forth in section 3 of the last Office Action. Specifically, applicant has amended the independent claims to limit the cover layer to being laminated *directly onto* the porous material layer or spacer fabric. Since the Ekern invention requires a layer intermediate to the cover layer and the spacer fabric, the reference no longer anticipates applicant's claims. Additionally, said amendment is sufficient to withdraw the 103 rejection based upon the cited Ekern reference as set forth in sections 5-7 of the last Office Action. In particular, one would not be properly motivated to remove the intermediate layer of Ekern to produce applicant's claimed invention.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

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subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 10, 11, 18-25, 29, 40, 41, 44, 53, and 54 are rejected under 35 U.S.C. 102(b) as anticipated by US 6,103,641 issued to Gehring, Jr.

5. Claims 1, 2, 10, 11, 18-25, 29, 40, 41, 44, 53, and 54 are rejected under 35 U.S.C. 102(e) as anticipated by US 6,627,562 issued to Gehring, Jr.

Gehring discloses a warp knit spacer fabric comprising a first and second outer layers connected by a middle layer of monofilament pile yarns interconnecting said outer layers (Gehring '641, abstract, col. 2, lines 10-16, and Figure 1; Gehring '562, abstract, col. 2, lines 16-22, and Figure 1). The outer layers are knit independently of each other to permit layers having different knitting constructions from different yarn types and deniers (Gehring '641, col. 2, lines 43-47; Gehring '562, col. 2, lines 49-53). For example, one outer layer may be of an open mesh construction for optimum air circulation, while the other layer may be of a solid and heavy construction (Gehring '641, col. 2, line 62 – col. 3, line 5; Gehring '562, col. 3, lines 1-11). One outer layer may be made of multifilament polyester yarns having a denier of 70-300 (Gehring '641, col. 2, lines 47-53; Gehring '562, col. 2, lines 53-59). The pile yarns may be polyester and are preferably monofilaments having a denier of 70-200 (Gehring '641, col. 2, lines 28-42; Gehring '562, col. 2, lines 34-48). The spacing of the two outer layers may be 12-30 mm depending on the product requirements (Gehring '641, col. 2, lines 18-26; Gehring '562, col. 2, lines 24-32). The spacer fabric may be incorporated into body armor, comprising a plurality of textile armor plies, a fabric layer, said spacer fabric, and outer covers of a fabric wrap (Gehring '641, col. 2, lines 54-61 and Figure 2; Gehring '562, col. 2, lines 60-67 and Figure 2).

Thus, the two Gehring patents explicitly teach the invention of claims 1, 2, 10, 11, 18-24, 29, 40, 41, 44, 53, and 54. Therefore, said claims are rejected as being anticipated by the recited Gehring patents. With respect to claim 25, it is argued that the knitted spacer fabrics of Gehring inherently will produce a honeycomb type-pattern. Hence, claim 25 is also rejected.

6. Claims 1-3, 10-12, 22, 24, 25, 40, 41, 44, 45, 53, and 54 are rejected under 35 U.S.C. 102(b) as anticipated by US 6,231,940 issued to Aichner et al.

Aichner discloses an interior trim or part for automobiles comprising a rigid molded support, a layer of knitted spacer fabric, and a layer of natural leather on the knitted spacer fabric (abstract). The spacer fabric is laminated to the support layer and leather cover layer by adhesive layers (abstract). Said spacer fabric comprises two textile outer surface layers joined by a fiber system of monofilaments (col. 4, lines 3-6 and 38-41) and has a thickness of 1-6 mm (col. 5, lines 2-5). The adhesive employed to laminate the leather cover layer to the spacer fabric may be different suitable adhesives, but is preferably a two-component polyurethane adhesive or a hot-melt adhesive (col. 5, lines 6-13). Thus, Aichner teaches the limitations of claims 1-3, 10-12, 22, 24, 25, 40, 41, 44, 45, 53, and 54.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claims 3, 12, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over both of the cited Gehring references in view of US 2002/0140258 issued to Ekern and/or the cited Aichner reference.

While the Gehring references fail to teach suitable materials for the cover layer, it is well known³ in the art to employ leather cover layers for spacer fabric composites. For example, note Ekern which teaches a cover layer for a spacer fabric comprising fabric or perforated leather (abstract and section [0017]). Additionally, as discussed above, Aichner employs a leather cover layer for a spacer fabric laminate. Thus, it would have been readily obvious to one of ordinary skill in the art to employ a leather cover layer, as motivated by the teachings of Ekern and Aichner, in the Gehring invention in order to produce an aesthetically pleasing cover to the Gehring invention. Therefore, claims 3, 12, 45 are rejected as being obvious over the cited prior art.

9. Claims 18-21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Aichner reference in view of both of the cited Gehring references.

While Aichner teaches a spacer fabric, the reference fails to give details of the spacer fabric construction. As such, one must look to the prior art for guidance in making said spacer fabric. For example, as discussed above, the Gehring references teach the limitations of claims 18-21 and 23. Thus, it would have been obvious to one of ordinary skill in the art to select a spacer fabric having the detailed features of the Gehring references since said features are well known in the art for producing successful spacer fabrics. Therefore, claims 18-21 and 23 are rejected over the cited prior art.

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10. Claims 9 and 31-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Gehring references.

Gehring is silent with respect on how to form the laminate layers of the body armor. As such, one must presume the lamination means is not critical to the invention and such means are well known in the art. Specifically, common lamination means for fabric layers include sewing, adhesive bonding, including cold curing adhesives, thermoset adhesives, and UV curable adhesives, and by welding, such as radio frequency, ultrasonic, thermal, and dielectric welding. Applicant is hereby given Official Notice of these facts. Hence, it would have been readily obvious to one skilled in the art to laminate the layers of Gehring by means readily known and understood in the art.

The examiner notes that the facts asserted to be common and well-known are capable of instant and unquestionable demonstration as being well-known. To adequately traverse such a finding, applicant must specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art.

Additionally, the selection of adhesive-type and composition, including flame retardant adhesives, is within the level of ordinary skill in the art. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. *In re Leshin*, 125 USPQ 416.

Furthermore, it is noted that the method of welding is not necessarily given patentable weight at this time. It is argued that the limitations thereof are method limitations in a product claim. As such, said limitations are not given patentable weight at this time. In order to be given

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patentable weight, a method limitation must materially effect the final product in a structural manner. The presence of process limitations on product claims in which the product does not otherwise patentably distinguish over the prior art, cannot impart patentability to the product. *In re Stephens*, 145 USPQ 656. Thus, claims 9 and 31-39 are also rejected.

11. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Aichner reference over the cited Ekern reference.

Aichner employs adhesive as a means to form the spacer fabric laminate. However, it would have been readily obvious to one of ordinary skill in the art to employ another means of making the laminate. For example, it is well known in the art of fabrics to laminate two fabrics by way of sewing. For example, Ekern teaches layers of a spacer fabric laminate may be sewn together (section [0017]). Thus, it would have been readily obvious to one of ordinary skill in the art to adding sewing to the laminate of Aichner in order to produce a sewn textile appearance and to further enhance the interlaminar strength. Therefore, claim 9 is also rejected over the cited prior art.

12. Claims 31-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Aichner reference.

While Aichner teaches forming the laminate by means of adhesive, the reference is silent with respect to the specific composition and properties of said adhesive and processes of applying said adhesives (e.g., flame retardant, solvent-based, thermoset, cold cure, and UV cure). As such, one must presume said specifics are not critical to the invention and such compositions, properties, and processes are well known in the art. In particular, it is well known to employ flame retardant adhesives and solvent-based polyurethane adhesives. Additionally, the recited

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processes of applying are well known in the art. Applicant is hereby given Official Notice of these facts. Hence, it would have been readily obvious to one skilled in the art to employ the recited adhesives and means of applying said adhesives in the invention of Aichner. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. *In re Leshin*, 125 USPQ 416. Thus, claims 31-35 are rejected.

The examiner notes that the facts asserted to be common and well-known are capable of instant and unquestionable demonstration as being well-known. To adequately traverse such a finding, applicant must specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art.

Regarding claims 36-39, lamination by means of welding would have been readily obvious to one of ordinary skill in the art since said means is a known equivalent to lamination by adhesive. Applicant is hereby given Official Notice of this fact. As such, it would have obvious to employ welding rather than adhesive to form the laminate of Aichner.

Furthermore, it is noted that the method of welding is not necessarily given patentable weight at this time. It is argued that the limitations thereof are method limitations in a product claim. As such, said limitations are not given patentable weight at this time. In order to be given patentable weight, a method limitation must materially effect the final product in a structural manner. The presence of process limitations on product claims in which the product does not otherwise patentably distinguish over the prior art, cannot impart patentability to the product. *In re Stephens*, 145 USPQ 656. Thus, claims 36-39 are also rejected.

Allowable Subject Matter

13. Claims 26-28 stand objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. While the prior art teaches outer layers of a spacer fabric having different air permeabilities from each other, said prior art does not teach or fairly suggest different air permeabilities within a single outer layer in varying portions of said outer layer as is recited in claim 26. Therefore, claims 26-28 contain allowable subject matter.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

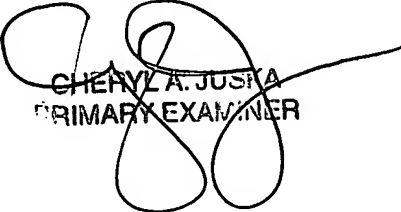
15. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the

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examiner should be directed to Cheryl Juska whose telephone number is 571-272-1477. The examiner can normally be reached on Monday-Friday 10am-6pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached at 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



CHERYL A. JUSKA
PRIMARY EXAMINER